OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/029,413

DATE: 01/15/2002
TIME: 07:55:35

Does Not Comply
Corrected Diskette Needed

Input Set : A:\ES.txt
Output Set: N:\CRF3\01152002\J029413.raw

```
 3 <110> APPLICANT: Malouf, Nadia
 4        Nichols, Timothy
 6 <120> TITLE OF INVENTION: Purified and Isolated Platelet Calcium Channel Nucleic Acids
```
and
```
 7        Polypeptides and Therapeutic and Screening Methods Using Same
 9 <130> FILE REFERENCE: 421/29
11 <140> CURRENT APPLICATION NUMBER: US/10/029,413
11 <141> CURRENT FILING DATE: 2001-12-20
11 <160> NUMBER OF SEQ ID NOS: 29
13 <170> SOFTWARE: PatentIn version 3.0
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ERRORED SEQUENCES

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2714 <210> SEQ ID NO: 10
2715 <211> LENGTH: 1338
2716 <212> TYPE: PRT
2717 <213> ORGANISM: Homo sapiens
2719 <400> SEQUENCE: 10
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2725 Ala Lys Lys Leu Glu Gln Lys Pro Lys Gly Glu Gly Ile Pro Thr Thr
2726            20                  25                  30
2729 Ala Lys Leu (Xaa) Ile Asp Glu Xaa Glu Ser Asn Val Asn Glu Val Lys
2730            35                  40                  45
2733 Asp Pro Tyr Pro Ser Ala Asp Phe Pro Gly Asp Asp Glu Glu Asp Glu
2734            50                  55                  60
2737 Pro Glu Ile Pro Leu Ser Pro Arg Pro Arg Pro Leu Ala Glu Leu Gln
2738 65                  70                  75                  80
2741 Leu Lys Glu Lys Ala Val Pro Ile Pro Glu Ala Ser Ser Phe Phe Ile
2742                85                  90                  95
2745 Phe Ser Pro Thr Asn Lys Ile Arg Val Leu Cys His Arg Ile Val Asn
2746            100                 105                 110
2749 Ala Thr Trp Phe Thr Asn Phe Ile Leu Leu Phe Ile Leu Leu Ser Ser
2750            115                 120                 125
2753 Ala Ala Leu Ala Ala Glu Asp Pro Ile Arg Ala Asp Ser Met Arg Asn
2754       130                 135                 140
2757 Gln Ile Leu Lys His Phe Asp Ile Gly Phe Thr Ser Val Phe Thr Val
2758 145                 150                 155                 160
2761 Glu Ile Val Leu Lys Met Thr Thr Tyr Gly Ala Phe Leu His Lys Gly
2762                 165                 170                 175
2765 Ser Phe Cys Arg Asn Tyr Phe Asn Met Leu Asp Leu Leu Val Val Ala
2766                 180                 185                 190
2769 Val Ser Leu Ile Ser Met Gly Leu Glu Ser Ser Ala Ile Ser Val Val
2770            195                 200                 205
2773 Lys Ile Leu Arg Val Leu Arg Val Leu Arg Pro Leu Arg Ala Ile Asn
2774       210                 215                 220
2777 Arg Ala Lys Gly Leu Lys Val (Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa)
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      E-->  2781  Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
            2782                      245                    250                         255
      E-->  2785  Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
            2786                      260                    265                         270
      E-->  2789  Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
            2790                  275                    280                    285
      E-->  2793  Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
            2794              290                    295                    300
      E-->  2797  Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
            2798  305                    310                    315                     320
      E-->  2801  Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys His Arg Gly Tyr
            2802                  325                    330                         335
            2805  Tyr Tyr Val Tyr Lys Asp Gly Asp Pro Met Gln Ile Glu Leu Arg His
            2806                      340                    345                     350
            2809  Arg Glu Trp Val His Ser Asp Phe His Phe Asp Asn Val Leu Ser Ala
            2810                  355                    360                     365
            2813  Met Met Ser Leu Phe Thr Val Ser Thr Phe Glu Gly Trp Pro Gln Leu
            2814              370                    375                     380
            2817  Leu Tyr Lys Ala Ile Asp Ser Asn Ala Glu Asp Val Gly Pro Ile Tyr
            2818  385                    390                    395                     400
            2821  Asn Asn Arg Val Glu Met Ala Ile Phe Phe Ile Ile Tyr Ile Ile Leu
            2822                  405                    410                     415
            2825  Ile Ala Phe Phe Met Met Asn Ile Phe Val Gly Phe Val Ile Val Thr
            2826                  420                    425                     430
            2829  Phe Gln Glu Gln Gly Glu Thr Glu Tyr Lys Asn Cys Glu Leu Asp Lys
            2830                  435                    440                     445
            2833  Asn Gln Arg Gln Cys Val Gln Tyr Ala Leu Lys Ala Arg Pro Leu Arg
            2834              450                    455                     460
            2837  Cys Tyr Ile Pro Lys Asn Pro Tyr Gln Tyr Gln Val Trp Tyr Ile Val
            2838  465                    470                    475                     480
            2841  Thr Ser Ser Tyr Phe Glu Tyr Leu Met Phe Ala Leu Ile Met Leu Asn
            2842                      485                    490                     495
            2845  Thr Ile Cys Leu Gly Met Gln His Tyr Asn Gln Ser Glu Gln Met Asn
            2846                  500                    505                     510
            2849  His Ile Ser Asp Ile Leu Asn Val Ala Phe Thr Ile Ile Phe Thr Leu
            2850              515                    520                     525
            2853  Glu Met Ile Leu Lys Leu Met Ala Phe Lys Ala Arg Gly Tyr Phe Gly
            2854              530                    535                     540
            2857  Asp Pro Trp Asn Val Phe Asp Phe Leu Ile Val Ile Gly Ser Ile Ile
            2858  545                    550                    555                     560
            2861  Asp Val Ile Leu Ser Glu Ile Asp Thr Phe Leu Ala Ser Ser Gly Gly
            2862                  565                    570                     575
            2865  Leu Tyr Cys Leu Gly Gly Gly Cys Gly Asn Val Asp Pro Asp Glu Ser
            2866              580                    585                     590
            2869  Ala Arg Ile Ser Ser Ala Phe Phe Arg Leu Phe Arg Val Met Arg Leu
            2870              595                    600                     605
            2873  Ile Lys Leu Leu Ser Arg Ala Glu Gly Val Arg Thr Leu Leu Trp Thr
            2874          610                    615                    620
```

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```
2877 Phe Ile Lys Ser Phe Gln Ala Leu Pro Tyr Val Ala Leu Leu Ile Val
2878 625             630             635             640
2881 Met Leu Phe Phe Ile Tyr Ala Val Ile Gly Met Gln Met Phe Gly Lys
2882             645             650             655
2885 Ile Ala Leu Val Asp Gly Thr Gln Ile Asn Arg Asn Asn Asn Phe Gln
2886             660             665             670
2889 Thr Phe Pro Gln Ala Val Leu Leu Leu Phe Arg Cys Ala Thr Gly Glu
2890             675             680             685
2893 Ala Trp Gln Glu Ile Leu Leu Ala Cys Ser Tyr Gly Lys Leu Cys Asp
2894     690             695             700
2897 Pro Glu Ser Asp Tyr Ala Pro Gly Glu Glu Tyr Thr Cys Gly Thr Asn
2898 705             710             715             720
2901 Phe Ala Tyr Tyr Tyr Phe Ile Ser Phe Tyr Met Leu Cys Ala Phe Leu
2902             725             730             735
2905 Val Ile Asn Leu Phe Val Ala Val Ile Met Asp Asn Phe Asp Tyr Leu
2906             740             745             750
2909 Thr Arg Asp Trp Ser Ile Leu Gly Pro His His Leu Asp Glu Phe Lys
2910             755             760             765
2913 Ala Ile Trp Ala Glu Tyr Asp Pro Glu Ala Lys Gly Arg Ile Lys His
2914     770             775             780
2917 Leu Asp Val Val Thr Leu Leu Arg Arg Ile Gln Pro Pro Leu Gly Phe
2918 785             790             795             800
2921 Gly Lys Phe Cys Pro His Arg Val Ala Cys Lys Arg Leu Val Gly Met
2922             805             810             815
2925 Asn Met Pro Leu Asn Ser Asp Gly Thr Val Thr Phe Asn Ala Thr Leu
2926             820             825             830
2929 Phe Ala Leu Val Arg Thr Ala Leu Lys Ile Lys Thr Glu Gly Asn Phe
2930             835             840             845
2933 Glu Gln Ala Asn Glu Glu Leu Arg Ala Ile Ile Lys Lys Ile Trp Lys
2934     850             855             860
2937 Arg Thr Ser Met Lys Leu Leu Asp Gln Val Ile Pro Pro Ile Gly Asp
2938 865             870             875             880
2941 Asp Glu Val Thr Val Gly Lys Phe Tyr Ala Thr Phe Leu Ile Gln Glu
2942             885             890             895
2945 His Phe Arg Lys Phe Met Lys Arg Gln Glu Glu Tyr Tyr Gly Tyr Arg
2946             900             905             910
2949 Pro Lys Lys Asp Ile Val Gln Ile Gln Ala Gly Leu Arg Thr Ile Glu
2950             915             920             925
2953 Glu Glu Ala Ala Pro Glu Ile Cys Arg Thr Val Ser Gly Asp Leu Ala
2954     930             935             940
2957 Ala Glu Glu Glu Leu Glu Arg Ala Met Val Glu Ala Ala Met Glu Glu
2958 945             950             955             960
2961 Gly Ile Phe Arg Arg Thr Gly Gly Leu Phe Gly Gln Val Asp Asn Phe
2962             965             970             975
2965 Leu Glu Arg Thr Asn Ser Leu Pro Pro Val Met Ala Asn Gln Arg Pro
2966             980             985             990
2969 Leu Gln Phe Ala Glu Ile Glu Met  Glu Glu Met Glu Ser  Pro Val Phe
2970             995             1000            1005
2973 Leu Glu  Asp Phe Pro Gln Asp  Pro Arg Thr Asn Pro  Leu Ala Arg
```

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       2974      1010                    1015                1020
       2977 Ala Asn   Thr Asn Asn Ala Asn   Ala Asn Val Ala Tyr   Gly Asn Ser
       2978      1025                    1030                1035
       2981 Asn His   Ser Asn Ser His Val   Phe Ser Ser Val His   Tyr Glu Arg
       2982      1040                    1045                1050
       2985 Glu Phe   Pro Glu Glu Thr Glu   Thr Pro Ala Thr Arg   Gly Arg Ala
       2986      1055                    1060                1065
E--> 2989 Leu Gly   Gln Pro Cys Arg Val   Xaa Xaa Xaa Xaa Xaa   Xaa Xaa Xaa
       2990      1070                    1075                1080
E--> 2993 Xaa Xaa   Xaa Xaa Xaa Xaa Xaa   Xaa Xaa Xaa Xaa Xaa   Xaa Xaa Xaa
       2994      1085                    1090                1095
E--> 2997 Xaa Xaa   Xaa Xaa Xaa Xaa Xaa   Xaa Xaa Xaa Xaa Xaa   Xaa Xaa Xaa
       2998      1100                    1105                1110
E--> 3001 Xaa Xaa   Xaa Xaa Xaa Xaa Xaa   Xaa Xaa Xaa Xaa Xaa   Xaa Xaa Xaa
       3002      1115                    1120                1125
E--> 3005 Xaa Xaa   Xaa Xaa Xaa Xaa Xaa   Xaa Xaa Xaa Xaa Xaa   Xaa Xaa Xaa
       3006      1130                    1135                1140
E--> 3009 Xaa Xaa   Xaa Xaa Xaa Xaa Xaa   Xaa Xaa Xaa Xaa Xaa   Xaa Xaa Xaa
       3010      1145                    1150                1155
E--> 3013 Xaa Xaa   Xaa Xaa Xaa Xaa Xaa   Xaa Xaa Xaa Xaa Xaa   Xaa Xaa Xaa
       3014      1160                    1165                1170
E--> 3017 Xaa Xaa   Thr Gly Pro His Ser   Lys Pro Cys Val Glu   Met Leu Lys
       3018      1175                    1180                1185
       3021 Gly Leu   Leu Thr Gln Arg Ala   Met Pro Arg Gly Gln   Ala Pro Pro
       3022      1190                    1195                1200
       3025 Ala Pro   Cys Gln Cys Pro Arg   Val Glu Ser Ser Met   Pro Glu Asp
       3026      1205                    1210                1215
       3029 Arg Lys   Ser Ser Thr Pro Gly   Ser Leu His Glu Glu   Thr Pro His
       3030      1220                    1225                1230
       3033 Ser Arg   Ser Thr Arg Glu Asn   Thr Ser Arg Cys Ser   Ala Pro Ala
       3034      1235                    1240                1245
       3037 Thr Ala   Leu Leu Ile Gln Lys   Ala Leu Val Arg Gly   Gly Leu Gly
       3038      1250                    1255                1260
       3041 Thr Leu   Ala Ala Asp Ala Asn   Phe Ile Met Ala Thr   Gly Gln Ala
       3042      1265                    1270                1275
       3045 Leu Ala   Asp Ala Cys Gln Met   Glu Pro Glu Glu Val   Glu Ile Met
       3046      1280                    1285                1290
       3049 Ala Thr   Glu Leu Leu Lys Gly   Arg Glu Ala Pro Glu   Gly Met Ala
       3050      1295                    1300                1305
       3053 Ser Ser   Leu Gly Cys Leu Asn   Leu Gly Ser Ser Leu   Gly Ser Leu
       3054      1310                    1315                1320
       3057 Asp Gln   His Gln Gly Ser Gln   Glu Thr Leu Ile Pro   Pro Arg Leu
       3058      1325                    1330                1335
       5629 <210> SEQ ID NO: 16
       5630 <211> LENGTH: 1772
       5631 <212> TYPE: PRT
       5632 <213> ORGANISM: Homo sapiens
       5634 <400> SEQUENCE: 16
       5636 Met Pro Thr Ser Glu Thr Glu Ser Val Asn Thr Glu Asn Val Ser Gly
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```
5637 1                      5                    10                   15
5640 Glu Gly Glu Asn Arg Gly Cys Cys Gly Ser Leu Trp Cys Trp Trp Arg
5641                20                  25                  30
5644 Arg Arg Gly Ala Ala Lys Ala Gly Pro Ser Gly Cys Arg Arg Trp Gly
5645            35                  40                  45
5648 Gln Ala Ile Ser Lys Ser Lys Leu Ser Arg Arg Trp Arg Arg Trp Asn
5649        50                  55                  60
5652 Arg Phe Asn Arg Arg Arg Cys Arg Ala Ala Val Lys Ser Val Thr Phe
5653 65                  70                  75                  80
5656 Tyr Trp Leu Val Ile Val Leu Val Phe Leu Asn Thr Leu Thr Ile Ser
5657                85                  90                  95
5660 Ser Glu His Tyr Asn Gln Pro Asp Trp Leu Thr Gln Ile Gln Asp Met
5661            100                 105                 110
5664 Pro Asn Lys Val Leu Leu Ala Leu Phe Thr Cys Glu Met Leu Val Lys
5665            115                 120                 125
5668 Met Tyr Ser Leu Gly Leu Gln Ala Tyr Phe Val Ser Leu Phe Asn Arg
5669        130                 135                 140
5672 Phe Asp Cys Phe Val Val Cys Gly Gly Ile Thr Glu Thr Ile Leu Val
5673 145                 150                 155                 160
5676 Glu Leu Glu Ile Met Ser Pro Leu Gly Ile Ser Val Phe Arg Cys Val
5677                165                 170                 175
5680 Arg Leu Leu Arg Ile Phe Lys Val Thr Arg His Trp Thr Ser Leu Ser
5681            180                 185                 190
5684 Asn Leu Val Ala Ser Leu Leu Asn Ser Met Lys Ser Ile Ala Ser Leu
5685        195                 200                 205
5688 Leu Leu Leu Leu Phe Leu Phe Ile Ile Ile Phe Ser Leu Leu Gly Met
5689    210                 215                 220
5692 Gln Leu Phe Gly Gly Lys Phe Asn Phe Asp Glu Thr Gln Thr Lys Arg
5693 225                 230                 235                 240
5696 Ser Thr Phe Asp Asn Phe Pro Gln Ala Leu Leu Thr Val Phe Gln Ile
5697                245                 250                 255
5700 Leu Thr Gly Glu Asp Trp Asn Ala Val Met Tyr Asp Gly Ile Met Ala
5701            260                 265                 270
5704 Tyr Gly Gly Pro Ser Ser Ser Gly Met Ile Val Cys Ile Tyr Phe Ile
5705        275                 280                 285
5708 Ile Leu Phe Ile Cys Gly Asn Tyr Ile Leu Leu Asn Val Phe Leu Ala
5709    290                 295                 300
5712 Ile Ala Val Asp Asn Leu Ala Asp Ala Glu Ser Leu Asn Thr Ala Gln
5713 305                 310                 315                 320
5716 Lys Glu Glu Ala Glu Glu Lys Glu Arg Lys Lys Ile Ala Arg Lys Glu
5717            325                 330                 335
5720 Ser Leu Glu Asn Lys Lys Asn Asn Lys Pro Glu Val Asn Gln Ile Ala
5721        340                 345                 350
5724 Asn Ser Asp Asn Lys Val Thr Ile Asp Asp Tyr Arg Glu Glu Asp Glu
5725        355                 360                 365
E--> 5728 Asp Lys Asp Pro Tyr Pro Pro Cys Asp Val Pro Gly Met Val Xaa Xaa
5729        370                 375                 380
E--> 5732 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
5733 385                 390                 395                 400
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item 9

RAW SEQUENCE LISTING
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```
E--> 5736  Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
     5737                  405                 410                 415
E--> 5740  Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
     5741              420                 425                 430
E--> 5744  Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
     5745          435                 440                 445
E--> 5748  Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
     5749      450                 455                 460
E--> 5752  Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
     5753  465                 470                 475                 480
E--> 5756  Xaa Xaa Pro Cys Arg Ile Arg Val Gly Cys His Lys Leu Ile Asn His
     5757              485                 490                 495
     5760  His Ile Phe Thr Asn Leu Ile Leu Val Phe Ile Met Leu Ser Ser Ala
     5761              500                 505                 510
     5764  Ala Leu Ala Ala Glu Asp Pro Ile Arg Ser His Ser Phe Arg Asn Thr
     5765          515                 520                 525
     5768  Ile Leu Gly Tyr Phe Asp Tyr Ala Phe Thr Ala Ile Phe Thr Val Glu
     5769          530                 535                 540
     5772  Ile Leu Leu Lys Met Thr Thr Phe Gly Ala Phe Leu His Lys Gly Ala
     5773  545                 550                 555                 560
     5776  Phe Cys Arg Asn Tyr Phe Asn Leu Leu Asp Met Leu Val Val Gly Val
     5777              565                 570                 575
     5780  Ser Leu Val Ser Phe Gly Ile Gln Ser Ser Ala Ile Ser Val Val Lys
     5781              580                 585                 590
     5784  Ile Leu Arg Val Leu Arg Val Leu Arg Pro Leu Arg Ala Ile Asn Arg
     5785          595                 600                 605
     5788  Ala Lys Gly Leu Lys His Val Val Gln Cys Val Phe Val Ala Ile Arg
     5789      610                 615                 620
     5792  Thr Ile Gly Asn Ile Met Ile Val Thr Thr Leu Leu Gln Phe Met Phe
     5793  625                 630                 635                 640
     5796  Ala Cys Ile Gly Val Gln Leu Phe Lys Gly Lys Phe Tyr Arg Cys Thr
     5797              645                 650                 655
     5800  Asp Glu Ala Lys Ser Asn Pro Glu Glu Cys Arg Gly Leu Phe Ile Leu
     5801              660                 665                 670
     5804  Tyr Lys Asp Gly Asp Val Asp Ser Pro Val Val Arg Glu Arg Ile Trp
     5805          675                 680                 685
     5808  Gln Asn Ser Asp Phe Asn Phe Asp Asn Val Leu Ser Ala Met Met Ala
     5809          690                 695                 700
     5812  Leu Phe Thr Val Ser Thr Phe Glu Gly Trp Pro Ala Leu Leu Tyr Lys
     5813  705                 710                 715                 720
     5816  Ala Ile Asp Ser Asn Gly Glu Asn Ile Gly Pro Ile Tyr Asn His Arg
     5817                  725                 730                 735
     5820  Val Glu Ile Ser Ile Phe Phe Ile Ile Tyr Ile Ile Ile Val Ala Phe
     5821              740                 745                 750
     5824  Phe Met Met Asn Ile Phe Val Gly Phe Val Ile Val Thr Phe Gln Glu
     5825          755                 760                 765
     5828  Gln Gly Glu Lys Glu Tyr Lys Asn Cys Glu Leu Asp Lys Asn Gln Arg
     5829          770                 775                 780
     5832  Gln Cys Val Glu Tyr Ala Leu Lys Ala Arg Pro Leu Arg Arg Tyr Ile
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5833 785                    790              795                 800
5836 Pro Lys Asn Pro Tyr Gln Tyr Lys Phe Trp Tyr Val Val Asn Ser Ser
5837              805              810              815
5840 Pro Phe Glu Tyr Met Met Phe Val Leu Ile Met Leu Asn Thr Leu Cys
5841          820              825              830
5844 Leu Ala Met Gln His Tyr Glu Gln Ser Lys Met Phe Asn Asp Ala Met
5845          835              840              845
5848 Asp Ile Leu Asn Met Val Phe Thr Gly Val Phe Thr Val Glu Met Val
5849     850                  855              860
5852 Leu Lys Val Ile Ala Phe Lys Pro Lys Gly Tyr Phe Ser Asp Ala Trp
5853 865              870              875                  880
5856 Asn Thr Phe Asp Ser Leu Ile Val Ile Gly Ser Ile Ile Asp Val Ala
5857              885              890                  895
5860 Leu Ser Glu Ala Lys Pro Thr Glu Ser Glu Asn Val Pro Val Pro Thr
5861          900              905              910
5864 Ala Thr Pro Gly Asn Ser Glu Glu Ser Asn Arg Ile Ser Ile Thr Phe
5865          915              920              925
5868 Phe Arg Leu Phe Arg Val Met Arg Leu Val Lys Leu Leu Ser Arg Gly
5869     930              935              940
5872 Glu Gly Ile Arg Thr Leu Leu Trp Thr Phe Ile Lys Ser Phe Gln Ala
5873 945              950              955                  960
5876 Leu Pro Tyr Val Ala Leu Leu Ile Ala Met Leu Phe Phe Ile Tyr Ala
5877              965              970                  975
5880 Val Ile Gly Met Gln Met Phe Gly Lys Val Ala Met Arg Asp Asn Asn
5881          980              985              990
5884 Gln Ile Asn Arg Asn Asn Asn Phe  Gln Thr Phe Pro Gln  Ala Val Leu
5885          995              1000              1005
5888 Leu Leu  Phe Arg Cys Ala Thr  Gly Glu Ala Trp Gln  Glu Ile Met
5889     1010              1015              1020
5892 Leu Ala  Cys Leu Pro Gly Lys  Leu Cys Asp Pro Glu  Ser Asp Tyr
5893     1025              1030              1035
5896 Asn Pro  Gly Glu Glu Tyr Thr  Cys Gly Ser Asn Phe  Ala Ile Val
5897     1040              1045              1050
5900 Tyr Phe  Ile Ser Phe Tyr Met  Leu Cys Ala Phe Leu  Ile Ile Asn
5901     1055              1060              1065
5904 Leu Phe  Val Ala Val Ile Met  Asp Asn Phe Asp Tyr  Leu Thr Arg
5905     1070              1075              1080
5908 Asp Trp  Ser Ile Leu Gly Pro  His His Leu Asp Glu  Phe Lys Arg
5909     1085              1090              1095
5912 Ile Trp  Ser Glu Tyr Asp Pro  Glu Ala Lys Gly Arg  Ile Lys His
5913     1100              1105              1110
5916 Leu Asp  Val Val Thr Leu Leu  Arg Arg Ile Gln Pro  Pro Leu Gly
5917     1115              1120              1125
5920 Phe Gly  Lys Leu Cys Pro His  Arg Val Ala Cys Lys  Arg Leu Val
5921     1130              1135              1140
5924 Ala Met  Asn Met Pro Leu Asn  Ser Asp Gly Thr Val  Met Phe Asn
5925     1145              1150              1155
5928 Ala Thr  Leu Phe Ala Leu Val  Arg Thr Ala Leu Lys  Ile Lys Thr
5929     1160              1165              1170
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```
5932 Glu Gly  Asn Leu Glu Gln Ala  Asn Glu Glu Leu Arg  Ala Val Ile
5933     1175             1180             1185
5936 Lys Lys  Ile Trp Lys Lys Thr  Ser Met Lys Leu Leu  Asp Gln Val
5937     1190             1195             1200
5940 Val Pro  Pro Ala Gly Asp Asp  Glu Val Thr Val Gly  Lys Phe Tyr
5941     1205             1210             1215
5944 Ala Thr  Phe Leu Ile Gln Asp  Tyr Phe Arg Lys Phe  Lys Lys Arg
5945     1220             1225             1230
5948 Lys Glu  Gln Gly Leu Val Gly  Lys Tyr Pro Ala Lys  Asn Thr Thr
5949     1235             1240             1245
5952 Ile Ala  Leu Gln Ala Gly Leu  Arg Thr Leu His Asp  Ile Gly Pro
5953     1250             1255             1260
5956 Glu Ile  Arg Arg Ala Ile Ser  Cys Asp Leu Gln Asp  Asp Glu Pro
5957     1265             1270             1275
5960 Glu Glu  Thr Lys Arg Glu Glu  Glu Asp Asp Val Phe  Lys Arg Asn
5961     1280             1285             1290
5964 Gly Ala  Leu Leu Gly Asn His  Val Asn His Val Asn  Ser Asp Arg
5965     1295             1300             1305
5968 Arg Asp  Ser Leu Gln Gln Thr  Asn Thr Thr His Arg  Pro Leu His
5969     1310             1315             1320
5972 Val Gln  Arg Pro Ser Ile Pro  Pro Ala Ser Asp Thr  Glu Lys Pro
5973     1325             1330             1335
5976 Leu Phe  Pro Pro Ala Gly Asn  Ser Val Cys His Asn  His His Asn
5977     1340             1345             1350
5980 His Asn  Ser Ile Gly Lys Gln  Val Pro Thr Ser Thr  Asn Ala Asn
5981     1355             1360             1365
5984 Leu Asn  Asn Ala Asn Met Ser  Lys Ala Ala His Gly  Lys Arg Pro
5985     1370             1375             1380
5988 Ser Ile  Gly Asn Leu Glu His  Val Ser Glu Asn Gly  His His Ser
5989     1385             1390             1395
5992 Ser His  Lys His Asp Arg Glu  Pro Gln Arg Arg Ser  Ser Val Lys
5993     1400             1405             1410
5996 Arg Thr  Arg Tyr Tyr Glu Thr  Tyr Ile Arg Ser Asp  Ser Gly Asp
5997     1415             1420             1425
6000 Glu Gln  Leu Pro Thr Ile Cys  Arg Glu Asp Pro Glu  Ile His Gly
6001     1430             1435             1440
6004 Tyr Phe  Arg Asp Pro His Cys  Leu Gly Glu Gln Glu  Tyr Phe Ser
6005     1445             1450             1455
6008 Ser Glu  Glu Cys Tyr Glu Asp  Asp Ser Ser Pro Thr  Trp Ser Arg
6009     1460             1465             1470
6012 Gln Asn  Tyr Gly Tyr Tyr Ser  Arg Tyr Pro Gly Arg  Asn Ile Asp
6013     1475             1480             1485
6016 Ser Glu  Arg Pro Arg Gly Tyr  His His Pro Gln Gly  Phe Leu Glu
6017     1490             1495             1500
6020 Asp Asp  Asp Ser Pro Val Cys  Tyr Asp Ser Arg Arg  Ser Pro Arg
6021     1505             1510             1515
6024 Arg Arg  Leu Leu Pro Pro Thr  Pro Ala Ser His Arg  Arg Ser Ser
6025     1520             1525             1530
6028 Phe Asn  Phe Glu Cys Leu Arg  Arg Gln Ser Ser Gln  Glu Glu Val
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/029,413

DATE: 01/15/2002
TIME: 07:55:36

Input Set : A:\ES.txt
Output Set: N:\CRF3\01152002\J029413.raw

```
6029      1535                    1540           1545
6032 Pro Ser  Ser Pro Ile Phe Pro His Arg Thr Ala Leu  Pro Leu His
6033      1550                    1555           1560
6036 Leu Met  Gln Gln Gln Ile Met Ala Val Ala Gly Leu  Asp Ser Ser
6037      1565                    1570           1575
6040 Lys Ala  Gln Lys Tyr Ser Pro Ser His Ser Thr Arg  Ser Trp Ala
6041      1580                    1585           1590
6044 Thr Pro  Pro Ala Thr Pro Pro Tyr Arg Asp Trp Thr  Pro Cys Tyr
6045      1595                    1600           1605
6048 Thr Pro  Leu Ile Gln Val Glu Gln Ser Glu Ala Leu  Asp Gln Val
6049      1610                    1615           1620
6052 Asn Gly  Ser Leu Pro Ser Leu His Arg Ser Ser Trp  Tyr Thr Asp
6053      1625                    1630           1635
6056 Glu Pro  Asp Ile Ser Tyr Arg Thr Phe Thr Pro Ala  Ser Leu Thr
6057      1640                    1645           1650
6060 Val Pro  Ser Ser Phe Arg Asn Lys Asn Ser Asp Lys  Gln Arg Ser
6061      1655                    1660           1665
6064 Ala Asp  Ser Leu Val Glu Ala Val Leu Ile Ser Glu  Gly Leu Gly
6065      1670                    1675           1680
6068 Arg Tyr  Ala Arg Asp Pro Lys Phe Val Ser Ala Thr  Lys His Glu
6069      1685                    1690           1695
6072 Ile Ala  Asp Ala Cys Asp Leu Thr Ile Asp Glu Met  Glu Ser Ala
6073      1700                    1705           1710
6076 Ala Ser  Thr Leu Leu Asn Gly Asn Val Arg Pro Arg  Ala Asn Gly
6077      1715                    1720           1725
6080 Asp Val  Gly Pro Leu Ser His Arg Gln Asp Tyr Glu  Leu Gln Asp
6081      1730                    1735           1740
6084 Phe Gly  Pro Gly Tyr Ser Asp Glu Glu Pro Asp Pro  Gly Arg Asp
6085      1745                    1750           1755
6088 Glu Glu  Asp Leu Ala Asp Glu Met Ile Cys Ile Thr  Thr Leu
6089      1760                    1765           1770
```

VERIFICATION SUMMARY   DATE: 01/15/2002
PATENT APPLICATION: US/10/029,413   TIME: 07:55:38

Input Set : A:\ES.txt
Output Set: N:\CRF3\01152002\J029413.raw

```
L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:2145 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:5
L:2176 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:6
L:2196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:2200 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:2209 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:7
L:2238 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:8
L:2263 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:2369 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2370 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2417 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2421 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2422 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2425 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2429 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2430 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2433 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2434 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2437 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2438 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2441 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2442 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2629 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2630 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2633 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2634 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2637 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2638 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2641 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2642 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2645 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2646 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2649 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2650 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2653 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2654 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2657 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2658 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2729 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:10
M:340 Repeated in SeqNo=10
L:5246 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:5247 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:5250 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:5251 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:5254 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
```

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/029,413

DATE: 01/15/2002
TIME: 07:55:38

Input Set : **A:\ES.txt**
Output Set: **N:\CRF3\01152002\J029413.raw**

```
L:5255 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:5258 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:5259 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:5262 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:5263 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:5266 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:5267 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:5270 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:5271 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:5728 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:16
M:340 Repeated in SeqNo=16
L:9466 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:23
L:9496 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:25
```